

WHAT IS CLAIMED IS:

1. A method for routing calls in a communication network comprising the steps of:

transmitting a call from a first mobile user to a gatekeeper node;

5 obtaining, by said gatekeeper node, an indication of whether said call can be routed to a second mobile user over an IP network;

if so, obtaining a roaming number associated with said second mobile user;

translating said roaming number into an IP address; and

10 forwarding said call from said gatekeeper node to a node associated with said IP address.

2. The method of claim 1, wherein said gatekeeper node is an ISTP.

3. The method of claim 1, wherein said gatekeeper node is a combination
15 GSM/ISTP node.

4. A method for routing a call between an originating station and a terminating station in a communication network comprising the steps of:

evaluating call information associated with said call at a call control point; and

20 routing said call based on said call information such that a quality level of said call is optimized.

-15-

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5. The method of claim 4, wherein said call information includes an identity associated with said terminating station.

6. The method of claim 5, wherein said call information further includes carrier information associated with said terminating station.

7. The method of claim 6, wherein said carrier information includes a carrier type for use in routing said call to said terminating station.

10 8. The method of claim 7, wherein said step of routing further includes the step of routing said call according to said carrier type.

9. The method of claim 8, wherein said carrier type further includes a circuit switched carrier

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10. The method of claim 8, wherein said carrier type further includes a packet switched carrier.

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11. The method of claim 10, wherein said communication system further includes a visited network associated with said terminating station, and one or more packet switched legs, and wherein said method further comprising the steps of:

retrieving a roaming number for said terminating station; and

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routing said call to said terminating station directly over one of said one or more packet switched legs to said terminating visited network.

12. The method of claim 9, wherein said communication system further includes
5 a gateway mobile switching center (GMSC), a visited network associated with said originating station, a home network associated with said terminating station, and a homing packet switched leg associated with said originating station, and wherein said method further comprises the steps of:

terminating said homing packet switched leg at said home network; and

10 routing said call to said terminating station through said GMSC.

13. The method of claim 11, wherein said step of routing further includes the step
of negotiating an end-to-end encoding between said originating station and said terminating station.

14. The method of claim 13, wherein said communication system further includes
a second visited network associated with said originating station, said first and second visited networks each having a voice gateway, and wherein said step of routing further includes the steps of:

20 first extending call negotiation between said originating station and said terminating station from said first and second voice gateways toward said one of said one or more packet switched legs; and

-17-

second extending said call negotiation from said one of said one or more packet switched legs toward said first and second voice gateways.

15. The method of claim 14, wherein said step of negotiating said end-to-end encoding further includes:

first signaling using out-of-band signaling within said one of said one or more packet switched legs; and

second signaling using inband signaling through said first and second voice gateways away from said one of said one or more packet switched legs.

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16. The method of claim 15, wherein said inband signaling includes GSM TS 04.53 based signaling.

17. The method of claim 16, wherein said out-of-band signaling includes H.245 based signaling.

18. The method of claim 5, wherein said identity includes a PIC identity associated with said terminating station.

19. The method of claim 4, wherein said call information further includes a user profile.

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-18-

20. A system for routing a call between an originating station and a terminating station in a communication network comprising:

a packet switched backbone; and

a gatekeeper node coupled to said packet switched backbone, said gatekeeper node
5 configured to:

evaluate call information associated with said call; and

route said call based on said call information such that a quality level of said
call is optimized.

10 21. The system of claim 20, wherein said call information includes an identity
associated with said terminating station.

22. The system of claim 21, wherein said call information further includes carrier
information associated with said terminating station.

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23. The system of claim 22, wherein said carrier information includes a carrier
type for use in routing said call to said terminating station.

24. The system of claim 23, wherein said step of routing further includes the step
20 of routing said call according to said carrier type.

25. The system of claim 24, wherein said carrier type further includes a circuit switched carrier

26. The system of claim 24, wherein said carrier type further includes a packet
5 switched carrier.

27. The system of claim 26, wherein said communication system further includes
a visited network associated with said terminating station, and one or more packet switched
legs, and wherein said method further comprising the steps of:

retrieving a roaming number for said terminating station; and
routing said call to said terminating station directly over one of said one or more
packet switched legs to said terminating visited network.

28. The system of claim 25, further comprising:
15 a gateway mobile switching center (GMSC);
a visited network associated with said originating station;
a home network associated with said terminating station; and
a homing packet switched leg associated with said originating station; wherein said
gatekeeper is further configured to:

20 terminate said homing packet switched leg at said home network; and
route said call to said terminating station through said GMSC.

-20-

29. The system of claim 27, wherein said gatekeeper is further configured to negotiate an end-to-end encoding between said originating station and said terminating station.

5 30 The system of claim 29, further comprising:
a second visited network associated with said originating station; and
a voice gateway associated with each of said first and second visited networks;
wherein said gatekeeper is further configured to:
first extend call negotiation between said originating station and said terminating
10 station from said first and second voice gateways toward said one of said one or more packet
switched legs; and
second extend said call negotiation from said one of said one or more packet switched
legs toward said first and second voice gateways.

15 31. The system of claim 30, wherein said step of negotiating said end-to-end
encoding further includes:
first signaling using out-of-band signaling within said one of said one or more packet
switched legs; and
second signaling using inband signaling through said first and second voice gateways
20 away from said one of said one or more packet switched legs.

-21-

32. The system of claim 31, wherein said inband signaling includes GSM TS 04.53 based signaling.

33. The system of claim 32, wherein said out-of-band signaling includes H.245
5 based signaling.

34. The system of claim 21, wherein said identity includes a PIC identity associated with said terminating station.

10 35. The system of claim 20, wherein said call information further includes a user
profile.